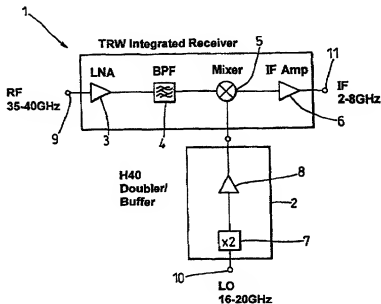




INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification 7 : H03D 9/06		A1	(11) International Publication Number: WO 00/55965
		(43) International Publication Date: 21 September 2000 (21.09.00)	
(21) International Application Number: PCT/GB00/00953		(81) Designated States: GB, JP, US, European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE).	
(22) International Filing Date: 15 March 2000 (15.03.00)		Published <i>With international search report.</i>	
(30) Priority Data: 9906047.7 17 March 1999 (17.03.99) GB			
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(54) Title: ELECTROMAGNETIC WAVE RECEIVER FRONT END



(57) Abstract

A receiver front end is provided capable of receiving electromagnetic wave signals having frequencies in the range of substantially 35GHz to substantially 40GHz, and having a gain of substantially 24dB or above and a noise figure of substantially 4dB or below, and comprising one or more multifunction monolithic microwave integrated circuits (MMICs). The receiver front end preferably has a noise figure of substantially 4dB or below over an output signal frequency range of substantially 1 to 10GHz, and a size in the region of 30mm² or less. The receiver front end may comprise a receiver MMIC, and a doubler/buffer amplifier MMIC. The receiver MMIC may comprise a low noise amplifier (3), a mixer (5), a filter (4) and an intermediate frequency amplifier (6).